



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
17 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

February 25, 2000

EPA Region 5 Records Ctr.



229910

SR-6J

Ms. Margaret Karolyi  
Carlson Environmental, Inc.  
65 East Wacker Place, Suite 1500  
Chicago, Illinois 60601

**VIA FACSIMILE**  
**AND CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

**Re: Notice of Approval of Site Investigation Work Plan**  
Fansteel, Inc.; North Chicago, Lake County, Illinois

This letter provides Fansteel, Inc., and their contractor, Carlson Environmental, Inc. (CEI), with the United States Environmental Protection Agency's (U.S. EPA) *Notice of Approval of the Site Investigation Work Plan (Work Plan)*, for the Fansteel, Inc., facility located in North Chicago, Lake County, Illinois.

**Approval of Site Investigation Work Plan:** Based upon a thorough review by the U.S. EPA of the draft and revised EE/CA Work Plan, the U.S. EPA hereby approves the July 1999, Revised Version 2.1, Site Investigation Work Plan with the following modifications.

**U.S. EPA Comments Incorporated By Reference into Work Plan:** Fansteel and CEI shall incorporate all of the comments and concerns of the U.S. EPA into the Work Plan.

**Quality Assurance Project Plan (QAPP) Approval:** This authorization is contingent upon the Fansteel and CEI's incorporation, in the implementation of the Work Plan, of the attached comments from Mr. Richard Byvik, Chemist with the U.S. EPA Region 5 Superfund Division Technical Support Section. Failure to incorporate any of the modifications cited in this letter or in the forthcoming final QAPP to be submitted, shall not affect the project schedule or the accomplishment of the project milestones.

**Sequence of Events, Letters, Submittals, Etc. Incorporated by Reference:** This letter references the following sequence of events, letters, submittals, etc., relative to the Work Plan submittals and review and comment letters by the U.S. EPA:

1. June 17, 1997, General Notice of Potential Liability Letter.
2. August 25, 1997, Meeting at the U.S. EPA Region 5 Office regarding the June 17, 1997, General Notice of Potential Liability Letter.
3. November 4, 1997, Letter to Mr. Clifton A. Lake, Esq., of McBride, Baker and Coles, following up on the August 25, 1997, meeting at the U.S. EPA Region 5 Office.

*February 25, 20000. Letter to Ms. Margaret Karolyi*  
*Re: Fansteel, Inc., Site Investigation Work Plan*

4. November 6, 1997, Letter from Mr. Lake to John O'Grady regarding the U.S. EPA's November 4, 1998, letter, and committing to the submittal of an appropriate Work Plan to the U.S. EPA by December 8, 1997.
5. February 9, 1998, Letter to Mr. Lake regarding the December 8, 1997, Letter.
6. February 23, 1998, Letter from Mr. Lake submitted in response to the U.S. EPA's February 9, 1998, Letter, committing to submit the revised Work Plan for the Work Plan to the U.S. EPA by April 15, 1998.
7. April 15, 1998, Letter from Mr. Lake submitting a revised Site Investigation Work Plan, prepared by Carlson Environmental, Inc., on behalf of Fansteel.
8. July 20, 1998, Letter to Mr. Lake regarding the Site Health and Safety Plan (HASP), Work Plan, and QAPP.
9. July 23, 1998, Letter to Ms. Margaret Karolyi, transmitting hard and soft (electronic) versions of the U.S. EPA Region 5 QAPP.
10. August 6, 1998, Letter from Mr. Lake to John O'Grady, responding to July 20, 1998, Letter to same regarding Fansteel's Work Plan revisions.
11. September 2, 1998, e-mail (8:25 am) to Ms. Karolyi (also faxed to her same day), regarding the submittal of the revised QAPP.
12. September 18, 1998, Letter to John O'Grady from Ms. Karolyi requesting clarifications on specific comments from July 20, 1998, Letter.
13. October 5, 1998, Letter from Ms. Karolyi to John O'Grady submitting a revised Work Plan incorporating the U.S. EPA's July 20, 1998, comments and committing to submitted CEI's QAPP and the HASP by October 12, 1998, and November 2, 1998, respectively.
14. October 6, 1998, Letter from Mr. Lake to John O'Grady submitting a revised Work Plan prepared by CEI for Fansteel, responding to the U.S. EPA's July 20, 1998, comment letter. Also committing to resubmit the Health and Safety Plan by October 12, 1998, and CEI's QAPP by November 2, 1998.
15. November 3, 1998, Letter to Mr. Lake regarding the Site HASP and Work Plan
16. February 23, 1999, Letter to Mr. Lake regarding the Site HASP and Work Plan.

*February 25, 2000/00, Letter to Ms. Margaret Karolyi  
Re: Fansteel, Inc., Site Investigation Work Plan*

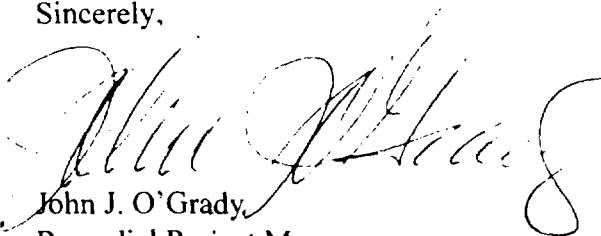
17. March 16, 1999, transmittal from Ms. Karolyi to John O'Grady, transmitting CEI's revised QAPP and supplement to Laboratory QAPP prepared by Great Lakes Analytical.
18. May 6, 1999, Letter to Mr. Lake regarding the QAPP.
19. June 28, 1999, facsimile to Ms. Karolyi, regarding U.S. EPA's comments on the QAPP, with a copy to Mr. Mark J. Steger, Esq., McBride, Baker & Coles, Inc.
20. July 23, 1999, Letter to John O'Grady from Ms. Karolyi transmitting Work Plan (Revised Version 2.1), CEI's QAPP (Version 1.2) dated July 1999, and Great Lakes Analytical's QAPP (revision 5.7), dated February 18, 1998.
21. February 23, 2000, Meeting at the U.S. EPA Region 5 Office with Mr. Michael J. Mocniak, VP, General Counsel and Secretary of Fansteel, Mr. Mark J. Steger of McBride, Baker & Coles, Ms. Margaret M. Karolyi and Mr. Edward E. Garske of CEI. Messrs. Krueger and O'Grady represented the U.S. EPA Region 5 Superfund Division.

**Submittal of Final Report:**

Please note that the submittal of the final Report must be submitted no later than 48 weeks from the date of this letter or **no later than Friday, January 26, 2001**. The draft Report should be submitted to the U.S. EPA Region 5 **no later than Friday, November 3, 2000**, in order to provide adequate time for the U.S. EPA's review of the draft submittal, incorporation of comments, and re-submittal of the final Report.

If you have any questions, please contact me at (312) 886-1477.

Sincerely,



John J. O'Grady,  
Remedial Project Manager  
Superfund Division

Enclosure

*February 25, 20000, Letter to Ms. Margaret Karolyi  
Re: Fansteel, Inc., Site Investigation Work Plan*

cc: D. Ballotti (U.S. EPA)  
D. Bruce (U.S. EPA)  
R. Byvik (U.S. EPA)  
E. Garske (CEI)  
T. Krueger (U.S. EPA ORC)  
J. Mayka (U.S. EPA)  
M. Mocniak (Fansteel)  
M. Steger, Esq. (McBride, Baker & Coles)

**Fansteel, Inc.**  
**Number One Tantalum Place**  
**North Chicago, Illinois**

**Comments on the second revision Quality Assurance Project Plan (QAPP) that was not addressed**

**E. GLA 6010 BG SOP ANALYSIS OF METALS USING ICP**

- 1) Section 8.1  
Before any samples are analyzed, **Tantalum** must be included in the method validation performed.
- 2) Section 10.0, Table 1, and APPENDIX A  
Include **Ta** in the calibration standards.
- 3) APPENDIX B  
For element **Ta** indicate the Wavelength, IDL, and any Interferant(s).

**COMMENT:**

**Great Lakes Analytical** provided a copy of **Sequoia Analytical's** ICP SOP that will be used for Tantalum analysis. The first page indicates that Germanium and Tantalum have been added to the analyte list. Tantalum is not included in TABLE 1, and not included in the preparation of the calibration standards, Sections 5.3 and 5.4, or anywhere in the **Sequoia** Method No.: EPA 6010A.

The EPA Method 1620 indicates that Tantalum can be determined using Semiquantitative Screening by ICP. Semiquantitative screening requires a sequential ICP instrument. Tantalum is analyzed at a wavelength of 226.230 nm with a detection limit of 0.5 mg/L. Tantalum working standard is prepared at 1.0 mg/L. The matrix spike is prepared at the midpoint of the calibration curve. **Sequoia** must be able to establish acceptable precision and accuracy of this method for the analysis of Tantalum. **Sequoia** should discuss how Tantalum will be analyzed.